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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/678,142   | 10/06/2003  | Tsukasa Ooishi       | 57454-975           | 1082             |
| 20277  | 7590        | 04/23/2004           | EXAMINER            |                  |
| MCDERMOTT WILL & EMERY<br>600 13TH STREET, N.W.<br>WASHINGTON, DC 20005-3096 |             |                      | HOANG, HUAN         |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2818                |                  |

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/678,142

Applicant(s)

OOISHI, TSUKASA

Examiner

Huan Hoang

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/985,724.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/06/03
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "said sense amplifiers" in line 4. There is insufficient antecedent basis for this limitation in the claim. There is only one sense amplifier recited in the preceding claim.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 13-19 rejected under 35 U.S.C. 102(e) as being anticipated by Tobita

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Tobita (Fig. 1) shows a semiconductor memory device having all the elements as recited in claims 13-19 as follows:

- a memory cell array (MC1-MCn)
- a sense amplifier (SA and RSA) connected to the bit lines and used for amplifying a signal for access to the memory cells and refresh, wherein the memory cells (MC1, ...) are paired with complementary memory cells (MC2, ...);
- the sense amplifier are formed of a normal sense amplifier (SA) connected to the bit line coupled to the memory cell and a complementary sense amplifier (RSA) connected to a complementary bit line coupled to the complementary memory cell;
- wherein the word lines are formed of a first word line WL1 and a second word line (WL2); and
- wherein one of the transistors in the memory cell is arranged as a transistor for normal access (NQ), the other is arranged as a transistor for refresh (RQ).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Wanlass.

Wanlass discloses a semiconductor memory device having all the elements as recited in claims 9-12 as follows:

- a memory cell array (Fig.1); and
- a sense amplifier (27 and 54, Fig. 1), wherein
- the first transistor is arranged as a transistor for normal access to be used for the normal access and not to be used for the refresh access (transistor 12, column 2, lines 51-56), and
- the second transistor is arranged as a transistor for refresh to be used for the refresh access and not to be used for the normal access (transistor 13, column 5, lines 33-41).

7. Claims 20-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Casper.

Casper discloses a semiconductor memory device having all the elements as recited in claims 20-25 as follows:

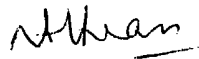
- a memory array (Fig.1);
- a cell plate forming one of electrodes of the capacitor and using the impurity region as an opposite electrode; and

- cell plate potential changing means (112, Gig. 1) for changing the potential on the cell plate (column 4, lines 39-40 and lines 44-45); wherein the cell plate potential changing means is time-varying potential changing means for correcting the potential on the cell plate varying with time due to leak of potentials in the capacitor (column 4, lines 18-49).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan Hoang whose telephone number is (571) 272-1779. The examiner can normally be reached on Mon-Fri 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Huan Hoang  
Primary Examiner  
Art Unit 2818